

WHAT IS CLAIMED IS:

1. A power transmission comprising:
 - a pulley rotated by torque transmitted from a driving power source,
 - 5 wherein the pulley having a cylindrical hub connected to a housing of a compressor therein, an annular web extending outward from an outer surface of the hub, and a cylindrical belt-wound portion extending from an external circumferential edge of the web along the axial direction of the hub;
 - 10 a damper fixed to the pulley and disposed in the interior of a recess which is formed out of an outer surface of the hub, an end surface of the web and an inner surface of the belt-wound portion; and
 - a polygonal driver connected to the damper and fixed to an input shaft of the compressor at the center of gravity thereof,
 - 15 wherein the recess is open towards the driver.
2. The power transmission according to claim 1, wherein the damper is an annular elastic member.
- 20 3. The power transmission according to claim 2, further comprising:
 - a torque transmission member having
 - an annular rib extending along the radial direction of the hub
 - and connected to vertex portions of the driver and
 - a cylindrical portion extending from an external circumferential
 - 25 edge of the rib along the axial direction of the hub;
 - wherein the damper is sandwiched between the inner surface of the

cylindrical portion and the outer surface of the hub.

4. The power transmission according to claim 3, wherein an inner diameter of the rib is larger than an outer diameter of the hub.

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5. The power transmission according to claim 3, further comprising:
a first circular ring connected to an inner surface of the damper; and
a second circular ring connected to an outer surface of the damper,
wherein an assembly of the damper, the first circular ring and the
10 second circular ring is forcibly inserted between the hub and the cylindrical
portion.

6. The power transmission according to claim 3, further comprising:
a stopper projection extending from an end portion of the cylindrical
15 portion opposite to the vertex portions of the driver; and
a stopper hole portion formed in the pulley opposite to the stopper
projection and loosely receiving the stopper projection.

7. The power transmission according to claim 6, wherein the rib is
20 connected to the vertex portion of the driver by a shear pin.

8. The power transmission according to claim 7, wherein the damper
twists when the number of revolutions of the driving power source is
different from that of the input shaft of the compressor.

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9. The power transmission according to claim 8, wherein the stopper

projection abuts an inner surface of the stopper hole portion as the damper twists.

10. The power transmission according to claim 9, wherein the shear pin is
5 sheared off by large torsion of the damper.

11. The power transmission according to claim 2, further comprising:
a torque transmission member having
an annular rib extending along the radial direction of the hub and
10 a cylindrical portion extending from an external circumferential
edge of the rib along the axial direction of the hub; and
an intermediate member disposed between the driver and the rib and
connected to the vertex portions of the driver and the rib,
wherein the damper is sandwiched between the inner surface of the
15 cylindrical portion and the outer surface of the hub.

12. The power transmission according to claim 11, wherein the
intermediate member is connected to the vertex portions by a shear pin.

20 13. The power transmission according to claim 12, further comprising:
a nut for connecting the shear pin to the intermediate member,
wherein the nut is disposed in the interior of the recess.

14. The power transmission according to claim 11, wherein the
25 intermediate member is connected to the rib by a screw.

15. The power transmission according to claim 11, wherein a position where the intermediate member and the rib are fixed is displaced from a position where the intermediate member and the vertex portions are fixed in the circumferential direction of the intermediate member.

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16. The power transmission according to claim 11, wherein the vertex portion is located farther from the pulley than the center of gravity of the driver is.

10 17. The power transmission according to claim 1, wherein the damper is a cylindrical elastic member.

18. The power transmission according to claim 17, further comprising:
a torque transmission member having:

15 a plurality of first top plate portions disposed in an open portion of the recess of the pulley and fixed to the vertex portion of the driver;

a plurality of second top plate portions disposed in an open portion of the recess of the pulley and abutting to the damper, wherein each second top plate portion is formed in the same size as that of each first top

20 plate portion;

a plurality of base plate portions disposed at a bottom portion of the recess, wherein each base plate portion is formed in the same size as that of each first top plate portion, and the first top plate portion and the second top plate portion are disposed above both sides of the base plate
25 portion alternately along the circumferential direction of the recess;

a plurality of first side plate connecting the first top plate

portion to the base plate portion which is adjacent to the first top plate portion; and

a plurality of second side plate connecting the second top plate portion to the base plate portion which is adjacent to the second top plate
5 portion,

wherein the damper is sandwiched between the first side plate and the second side plate.

19. The power transmission according to claim 18, further comprising:

10 a stopper projection extending from an end portion of the base plate portion; and

a stopper hole portion formed in the pulley opposite to the stopper projection and loosely receiving the stopper projection.

15 20. The power transmission according to claim 19, wherein the stopper projection is disposed in every other base plate portion.

21. The power transmission according to claim 18, wherein the first top plate portions are connected to the vertex portion of the driver by a shear
20 pin.

22. The power transmission according to claim 21, further comprising:

a nut for connecting the shear pin to the top plate portion, wherein the nut is disposed in the interior of the recess.

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23. The power transmission according to claim 18, wherein the damper

is connected to the pulley by a fixing pin.

24. The power transmission according to claim 18, wherein the vertex
portion of the driver is located nearer to the pulley than the center of
5 gravity of the driver is.

25. The power transmission according to claim 21, further comprising:
a pair of side plate portions disposed on the vertex portion of the
driver for sandwiching the damper between them.

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26. The power transmission according to claim 25, wherein the damper
is connected to the pulley by a shear pin.

27. The power transmission according to claim 26, wherein the shear pin
15 comprises:

a parallel portion to be inserted into a through-hole of the pulley;
a parallel pin portion to be inserted into an opening of the damper;
and

a flange portion connecting the parallel portion to the parallel pin
20 portion.

28. The power transmission according to claim 27, wherein the vertex
portion of the driver is located nearer to the pulley than the center of
gravity of the driver is.

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